

Eyetech EZ-Tower Z4 : Installation Instructions

Congratulations on purchasing your Eyetech EZ-Tower Z4, This comprehensive documentation will guide you slowly and step-by-step through the procedure of fitting an A1200 motherboard and Z4 busboard to your tower. We have tried to make the installation as painless as possible, but should you find parts of the installation difficult, please call our technical support line, the number of which can be obtained by calling our sales department.

If you are having a lot of difficulty however, for a small charge we can perform the installation for you. Please call our sales department for details.

Eyetech recommend that you read through this entire documentation before proceeding.

What you should receive:

Eyetech EZ-Tower main case, with:

- Custom backpanel fitted
- AT-type power supply
- Fixing screws

Installation manual

LED header adapter for A1200

34-way floppy drive cable

Coverplates for any unused rear ports

Fitting screws

Optionally:

Z4 busboard & throughport adapter

Blue wire, complete with scotch lock (supplied when purchased without Z4 busboard)

What else you need:

Amiga 1200

Crosshead screwdriver

Getting started:

Before you attempt to install your A1200 in the Z4 Tower, you should first be able to verify that the A1200 works properly in its current configuration. This simple step can help diagnose any problems that may occur later in the installation. The next step is to dismantle your A1200 so that you have just the main motherboard left in its lower shielding.

Dismantling your A1200:

1. Turn your A1200 over (keyboard facing down).
2. Open the trapdoor slot and remove any accelerator if present.
3. Remove the 5 screws holding the A1200 case on (you will need to unscrew one beneath the 'warranty' sticker).
4. Remove the 2 screws on the back lip of the A1200, holding the floppy drive down.
5. Carefully turn your A1200 back (keyboard facing up) holding at both sides of the case to stop it opening.
6. Lift the lid on the A1200 case (front first), but do not pull the cover away from the rest of the A1200; simply 'fold it over' to make it rest behind the A1200.
7. Remove the keyboard cable, by pulling gently but firmly on the green ribbon cable, to detach it from the motherboard.
8. Unseat the keyboard frame and remove it from the A1200.
9. Gently pull and release the LED connector, located below the floppy drive, leading to the A1200 top casing.
10. You can now remove the top of the A1200 case from the working area.
11. Remove the screw holding the floppy drive down, located just below the drive.
12. Remove the floppy drive power cable from the motherboard, which leads to the back of the floppy drive.
13. Carefully remove the floppy drive data cable from the motherboard, which also leads to the back of the floppy drive.
14. Remove the floppy drive from the working area.
15. If you have a hard drive fitted inside your A1200, remove any screws holding it in place, and any cables connecting it to the motherboard (including buffered interfaces). You can then remove it from the working area.
16. Remove any additional peripherals (i.e., high-speed serial ports etc.)
17. Turn the computer over, and undo the screw located at the front of the casing, which holds the motherboard to the bottom casing.
18. Carefully turn the computer back again and undo the screw located to the bottom left of the shielding, holding the motherboard to the bottom casing.
19. Lift the front of the motherboard and pull it towards you. Provided all screws have been released, it should come away from the bottom casing easily.
20. Remove the bottom casing from the working area.
21. Lay the motherboard facing up, and bend back all the small tabs which hold the top metal shielding down.
22. Carefully remove the top metal shielding, bending back any tabs you may have missed.
23. If you have an EZ-Key Mk.2 keyboard adapter (the type that slots into the white plastic keyboard slot), you should remove the cover to the plastic keyboard slot now.

24. Finally bend forward all the small tabs located on the back edge of the metal shielding.

You should now have a bare A1200 motherboard, still in its lower metal shielding. Now would be a good time to check that the 2 Kickstart ROM's are seated properly (these are the 2 large socketed chips in the centre of the motherboard). Simply give them a firm press downwards.

The next step is to rotate the A1200 by 180°, and remove the 3 leftmost and the 3 rightmost hexagonal screws located next to the ports. If you take a look at the back of the tower backpanel, you will be able to see why this is necessary. Removing them is possible using pliers, but care must be taken, as the heads can be damaged this way. There are specialist tools available from shops.

You will also need to make a small cut in the top of the metal shielding, to allow it to 'slot' around an edge in the tower. This cut should be approximately 4mm wide, 5mm deep, and centred 60mm from the power supply end of the shielding (the cut should end up roughly over one side of the composite video socket).

Now you will need to bend back the metal shielding that is located to the right of the motherboard, opposite the expansion slot. This is necessary because the Z4 throughport adapter makes an accelerator overlap a small area of the motherboard, and hence this piece of shielding needs to be moved. You should bend it backwards, so that it ends up sitting next to the rest of the metal shielding, as bending it forwards could mean that the components on an accelerator would be short-circuited if they touch.

Fitting your A1200:

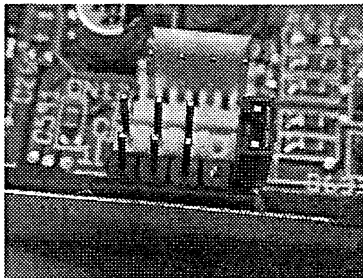
Next you should place the tower itself on the work surface. This stage involves the complete fitting of your A1200 in the tower.

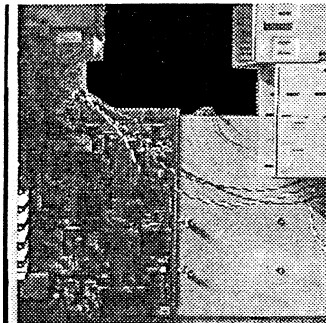
If you received a 90° PCMCIA slot adapter as part of your purchase, you should slot it into your PCMCIA slot at this stage.

You need to locate the keyboard socket on the tower, located near to the power supply. You should use screws to attach the keyboard connector end of your keyboard adapter to this hole.

Now you will need to fit the LED header adapter to the LED header located on your A1200, next to the floppy drive power socket (*see picture*).

Next you should unscrew the power supply from the back of the tower (if it is screwed in), and position it on the far side of the metal backplate.

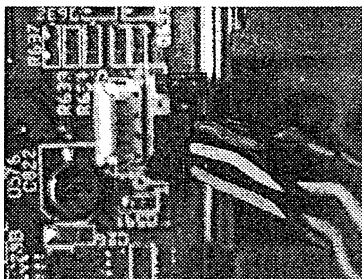




The next step is to position the A1200 loosely in the tower, so that you can attach several cables. You should position it so that it is resting with the PCMCIA port facing down, the expansion (accelerator) port facing upwards, and the connectors facing towards the back of the tower (see picture).

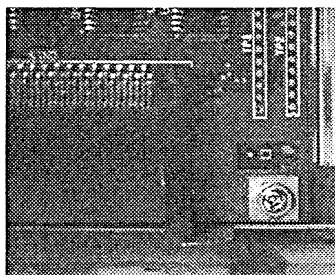
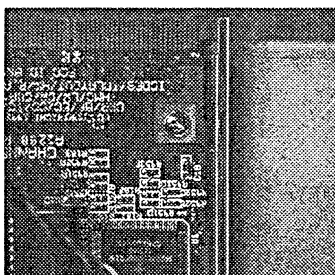
To continue, you will need to follow the documentation you received with your keyboard adapter. Generally, it will either fit into the white keyboard slot (if it is a Mk.2) with the large chip facing the back of the tower, or it may fit on the chip adjacent to the keyboard slot (if it is an A4000 keyboard adapter), with the wire running from it going upwards. If it is a Mk.2, you will also need to connect the wire from the adapter itself to the keyboard connector socket you previously affixed to the backpanel.

Now you will need to attach the LED connectors which run from the front of the tower. You should connect them to the LED header adapter you previously attached to your A1200. The order should be green - yellow - red, going upwards. The coloured wires should all be the ones nearest the back of the tower, and the white wires should be nearest the front of the tower (see picture).



You should now fix the A1200 into the tower. The small cut in the metal shielding you made earlier should line up with a notch behind the card slots. If not, you should remove the A1200 and extend the cut until it fits. All the ports should line up at the back of the tower.

Next, loosely screw in the 6 hexagonal screws which fit next to the ports on the back of the tower. These should not be tightened just yet. Following this, you should now screw the A1200 motherboard to the large backplate, using 2 screws (see pictures).



You can now tighten the screws on the back of the tower case, to hold the A1200 motherboard in place. Ensure you do not overtighten them, as the ends can break away.

Attaching devices to the tower:

Now you should attach the supplied floppy drive cable to the A1200 motherboard. This connects to the 34-pin header located towards the top of the tower. The red line (indicating pin 1) which is on one side of the cable should be towards the top of the tower (pin 1 is also labelled on the motherboard).

You can now install the devices that fit in the drive bays. This includes hard disk drives, floppy disk drives, CD-ROM drives, Zip drives etc. Before you try to install a device which appears on the front of the machine, you should check to see that the metal cover (located behind the plastic snap-off front) for that particular drive bay has been removed.

You should now refit the power supply onto the tower backpanel using 4 screws.

Next, you should attach power connectors to each of the devices you installed. If necessary change jumpers on any IDE drives so that they are operating in master or slave mode (consult your buffered interface documentation for more details).

Now you can connect up any IDE cables you have. This may involve a buffered interface, in which case you can mount it on the base of the tower with the supplied velcro. The IDE header on the motherboard is located towards the bottom of the tower, adjacent to the metal RF modulator box. When connecting any IDE cable to the motherboard, ensure you connect the cable so that the red line is on the side pointing towards the front of the tower (pin 1 is labelled on the motherboard).

The next step is to fit the floppy drive cable to the floppy drive itself. This should align so that the red stripe (pin 1) goes to the left hand side of the floppy drive, when viewed from the back.

Now you should attach any additional internal peripherals to your A1200, such as scandoublers, clockport accessories (provided there is enough physical room beneath the Z4 busboard if one is fitted) and enhanced IDE ports (i.e., Elbox IDE Flyer). Follow the instructions supplied with your peripherals for orientation and positioning etc.

Next, connect any devices which have external connectors to the back of the tower, e.g. scandoublers and high speed serial ports.

Use without a Z4 busboard:

If you are using your Z4 tower without a Z4 busboard, you need to connect the blue scotch-lock connector to the -12 volts wire off an AT power connector, which is usually blue (you should use a multi-meter

to test this, by connecting one end on the blue wire and one on the tower metal chassis, and measuring the p.d.). An AT power connector is one of the 2 power connectors with 6 wires running into it.

To connect the scotch-lock, first ensure the power is switched off. Then line up the blue wire that is not part of the power supply with the inside of the scotch-lock (you should use the end of the wire which is not a metal pin). Next line up the -12v wire of the AT power supply into the scotch lock, and then use pliers to squeeze the metal holder in place, and snap the cover across it.

Now you will need to connect the small metal pin on the end of the blue wire into the back of the A1200. The blue wire should run through the small hole below the A1200 motherboard, and then double back on itself to go through the other small hole above it, and into the MIDDLE pin of the A1200 power block socket.

Finally we should do a quick test before proceeding. This will ensure your setup is still fully functioning.

Firstly, attach a floppy drive power connector to the A1200 motherboard, next to where you fitted the LED header adapter. Then connect a mouse and monitor to the back of the computer. Next, connect a 3-pin 'kettle-lead' to the power socket on the power supply, and to the mains.

Now switch the tower on, using the button at the front of the tower, whilst holding down both mouse buttons. Keep the buttons held for at least 30 seconds, and wait for a grey Amiga boot-screen to show on the screen.

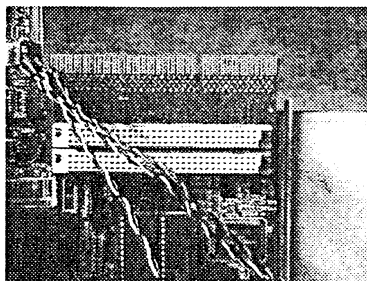
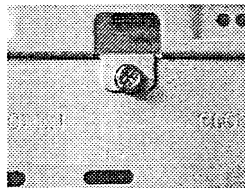
If you see the boot-screen, it indicates the hardware is not having any conflicts, and hence you can continue. However if there is no response after this time, switch the power off and ensure all the cables are connected correctly. If this is the case, gradually remove all the peripherals until you see the boot-screen described above. This will help you diagnose which piece of hardware is conflicting. If you have any further problems, you should call Eyetech.

Once the setup is working, remove the power connector, which you connected to the floppy drive power connector. If you are not using a Z4 busboard though, you should leave the power connector connected to the A1200 motherboard.

Fitting the Z4 Busboard:

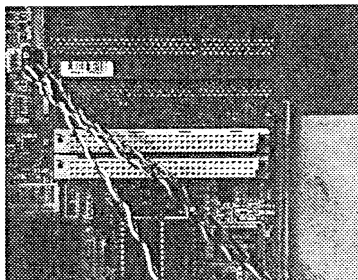
If you purchased a Z4 busboard with your tower, you will need to follow the instructions in this section, else you can ignore them.

Next you should unscrew the floppy drive / hard drive cradle. It is held in place by a single screw, and then can be slid towards the back of the case to release it (see *picture*). You should not need to take any devices out of it before removing it.

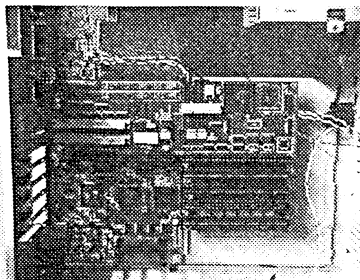


Now you should fit the Zorro throughport adapter onto the A1200 expansion (accelerator) slot (see *picture*). It will simply slide down over the end. You should ensure it is aligned correctly.

The next step is to fit an accelerator onto the end of the Z4 throughport adapter (see *picture*). It would be a good idea at this stage to ensure the small metal rectangular crystal on it has not come loose whilst the board has been moved around.

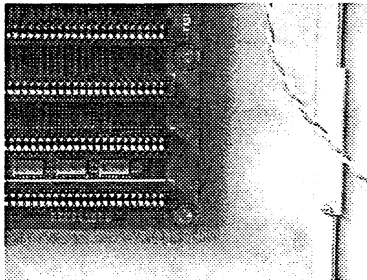
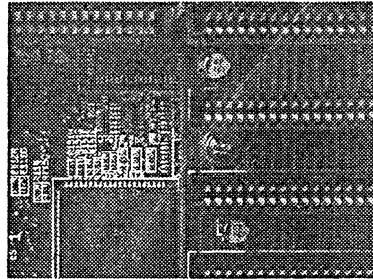
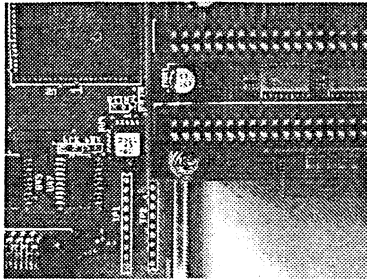


You will now have to screw 4 'Z-shaped' metal spacers onto the backplate, next to the A1200 motherboard. Simply position each one over a hole which lines up with ones on the Z4 board, on the inside of the tower. The circle should be the part that sticks out, and the screw should go through the back of the metal backplate, and into the flat end of the spacer.

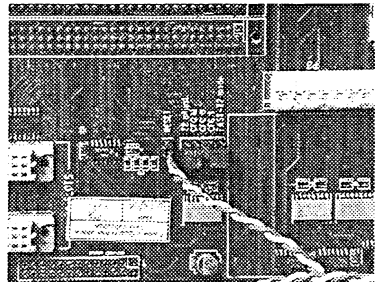


Now you will need to push the Z4 busboard onto the throughport adapter. First ensure you have aligned the board correctly, then move any wires out of the way, and finally press the white connectors firmly together (see *picture*).

Next you should screw the Z4 main board onto the 4 spacers which extend from the metal backplate; they may need swivelling so that they face left (*see pictures*).



Now you should attach the reset button for the tower onto the Z4 board. It does not matter which way round you connect it. You will also need to set the jumpers for the Z4 board. Refer to your Z4 busboard documentation for this (*see picture*).

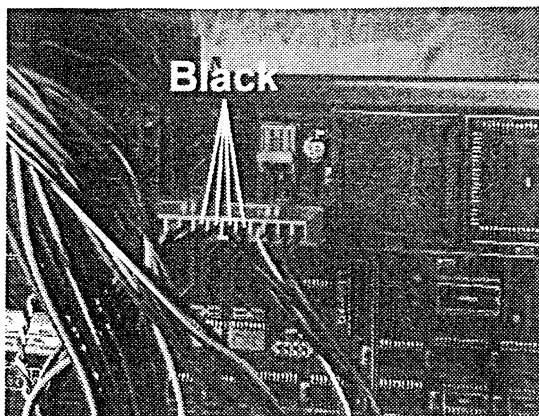


You should now slot back your floppy disk / hard disk cradle, and fasten the securing screw back in place.

Next you will need to attach the power connectors to the Z4 busboard. These are 2 6-wire connectors, which slot into the long white connector on the board (*see picture, and take note of orientation*).

Note: The orientation of these connectors should be such that the 4 black wires are in the CENTRE of the white socket. By connecting these cables incorrectly, you risk damaging your Z4

board and / or your Amiga. Eyetech cannot accept any responsibility for damage caused in this way.



Now connect all wires to the back of the system (mouse, keyboard, monitor, power etc.), and do a quick test (as described previously), to check everything is working. If things do not seem to be working, check the wiring again. Failing that, you should call Eyetech.

Provided the system is working, slot in any Zorro cards you have and screw them in, one by one, and install the drivers / software at each step.

Final Steps:

When you are sure you have a fully working system, attach a plastic mounting pad to each side of the top of the accelerator, in the 'roof' of the tower. This will stop the 'flapping around' of accelerators which is common on some tower systems.

Finally, simply screw on the side panels of your A1200 tower. Congratulations! You now have an EZ-Tower Z4. If you have any technical problems with the tower, please contact the Eyetech technical support line, the number of which can be obtained from our sales line.

Z4-Board Jumper Settings:

Reset directly connected to system's reset signal

Z2-adjust default: open

open: regular timing on all Z2-slots

closed: special timing (later strobe signals) for Z2-Slot no.5 (the leftmost slot)

Fast-Z2 mode default: open

open: regular timing on all Z2-slots

closed: special timing (double speed) for Z2-Slot no.1 & 2 (the two rightmost slots)

Attention! works only with specially modified Z2-boards (Cybervision-FastZ2, Buddha-FastZ2)

AutoCfg M default: open

open: regular mode for Autoconfig detection counter

closed: special mode (not needed for Apollo, Blizzard)

AutoCfg 0,1 default: see below

binary coded bypass value for Autoconfig detection counter

* for reference only:

* pass cycles 0 1 2 3

* =====

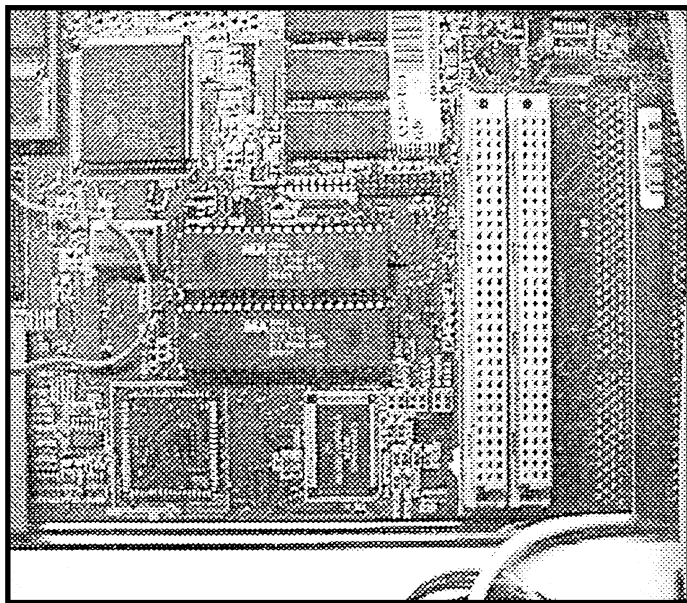
* AutoCFG 0 open closed open closed

* AutoCFG 1 open open closed closed

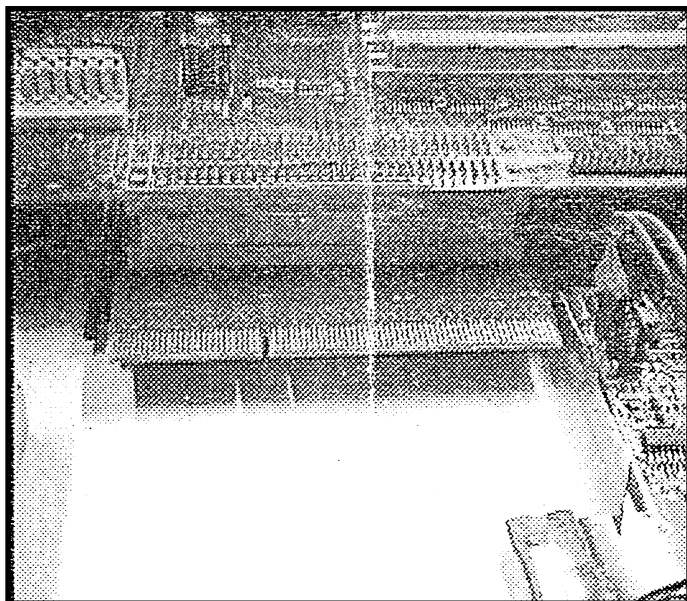
appropriate settings for common accelerator boards:

accel. board	AutoCFG M	0	1
=====			
Apollo all	open	closed	open
Blizz. 1230 (old)	open	closed	open
Blizz. 1230 (new)	open	open	open
Blizz. 1240 /1260	open	open	open
Blizz. 1200 PPC	open	open	open

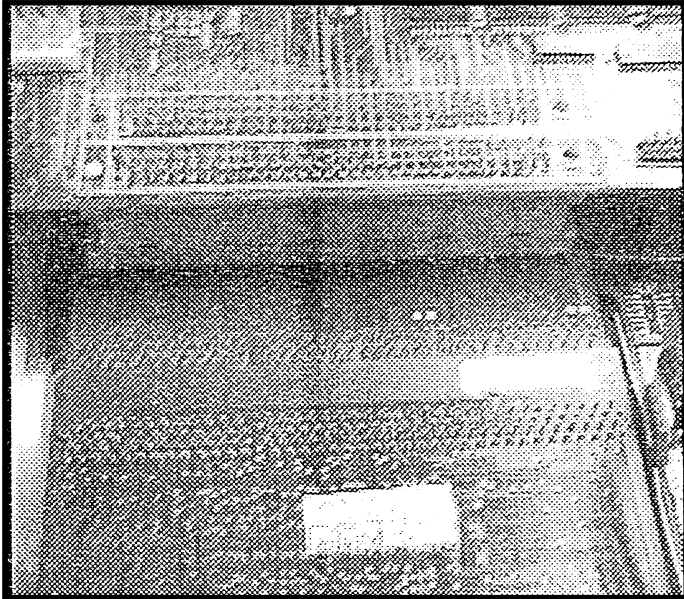
EZ-BUS adapter



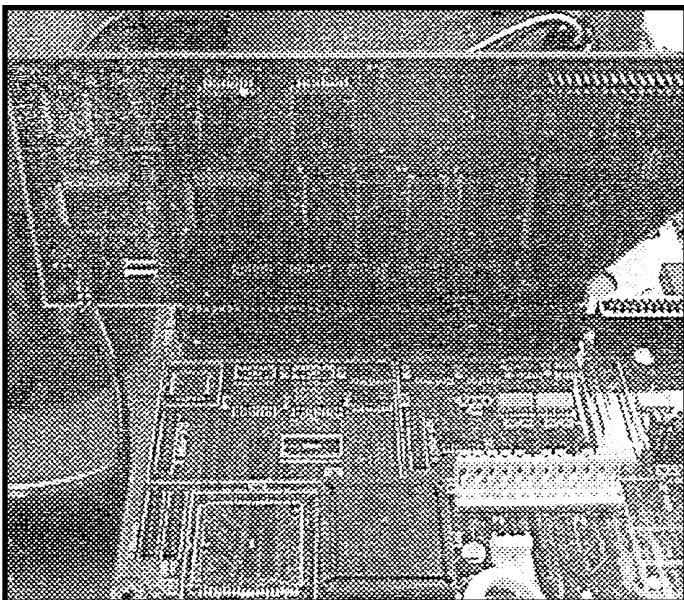
1. First fit the smaller board onto your trap door connector.



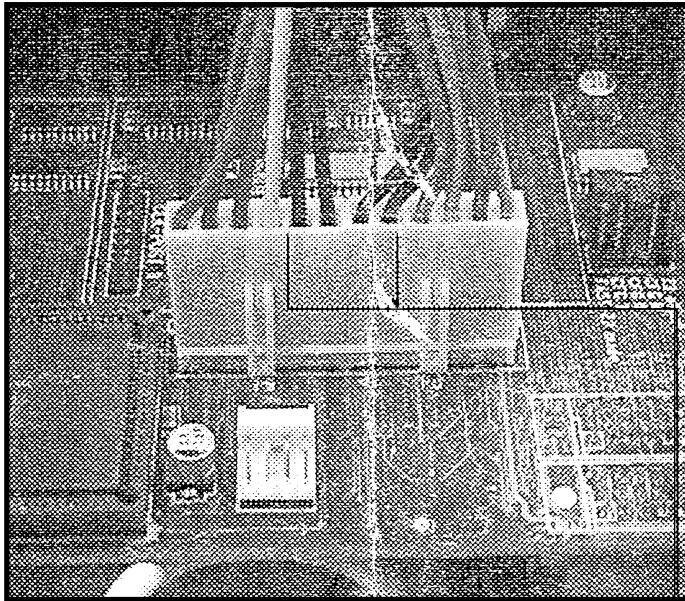
2. Then push the larger board down onto the smaller board.



3. Next fit your accelerator
e.g. Apollo 040.



4. Then any Zorro Card
e.g. CV64-3D shown here.



5. Power is taken from the PC connectors, ensure that the 4 black wires are next to each other.

Connecting Your Z4 Video Slot Enabler

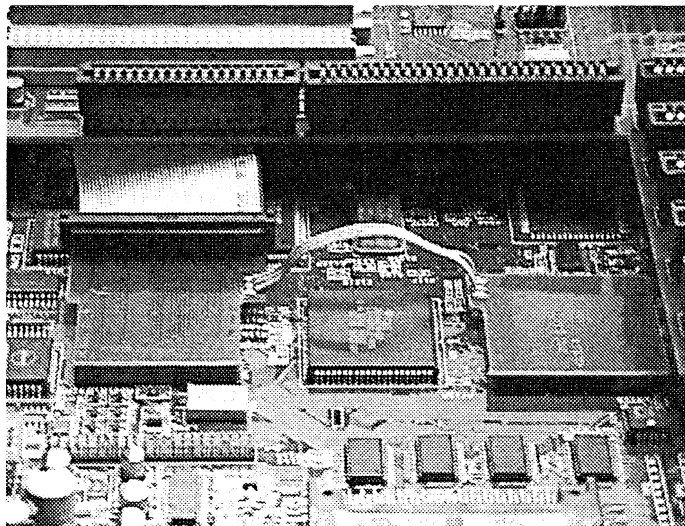
Introduction:

The Video Slot Enabler for your Z4 Busboard will allow you to use scandoublers and flickerfixers designed for use in Zorro slots (often combined with a graphics card, such as the Picasso IV and Cybervision 64/3D)

Fitting:

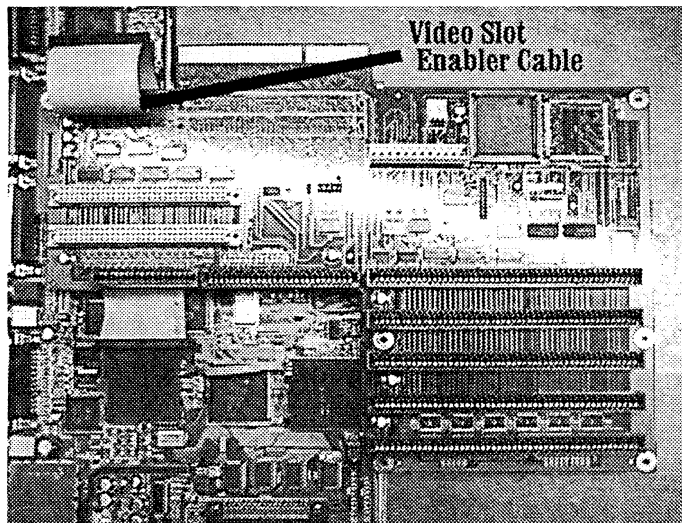
There are three main steps to connecting your Video Slot Enabler.

1) Connect the two supplied circuit boards over the 'Lisa' and 'Alice' chips on your A1200, pictured below. Take note of the orientation they will only connect one way round, so do not force them. Whilst pressing on the top of the boards, ensure that something is supporting your A1200 underneath, else the A1200 motherboard will bend and there is the possibility that some tracks may break.



2) Connect the ribbon cable to the PCB pictured above on the left. Ensure the coloured cable is located towards the front of the A1200 motherboard (this is indicated by a '1' on the board)

3) Pass the cable underneath the Z4 Busboard, and bend it back on itself so that it connects onto the Busboard without twisting, again making sure the coloured stripe lines up with the '1' on the Z4 Busboard, as pictured below



If you have any problems fitting this device to your Amiga, please call Eyetech and we'll be happy to help.

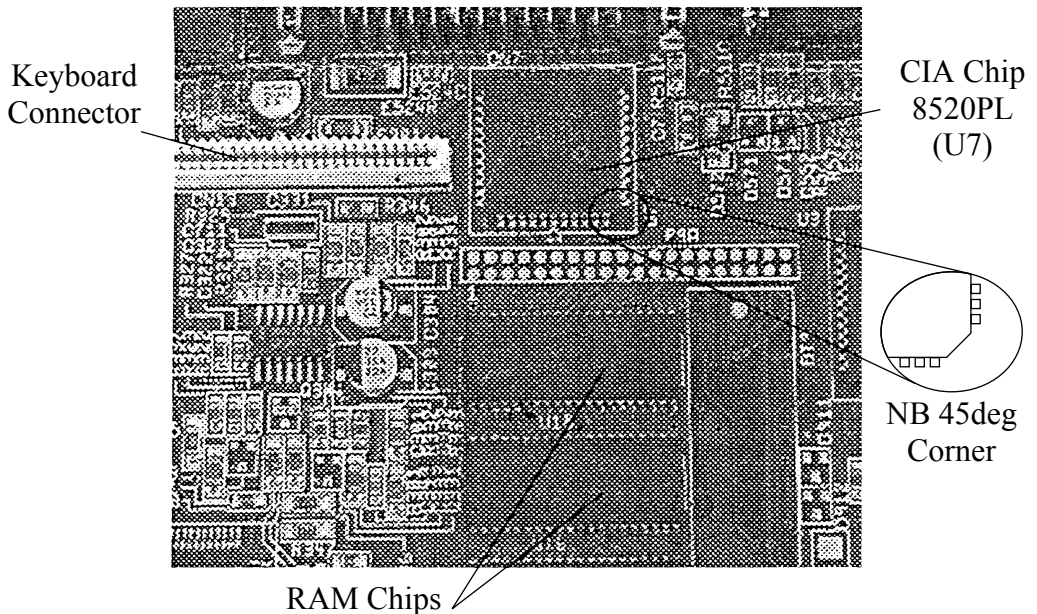
The Eyetech EZ-KeySE PC Keyboard interface for the A1200

This new SE version of the EZ-Key interface has several key improvements over the original design, these include:-

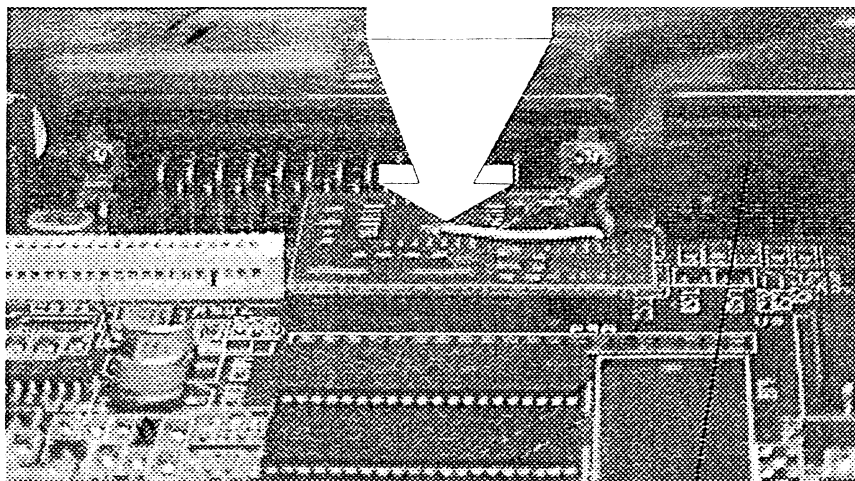
- ❑ Taking power directly from the A1200 motherboard - eliminating the requirement of an external power connector
- ❑ Fewer connections - making for an easier & problem free installation.
- ❑ Less components - for increased reliability & a reduction in power consumption.

Installation

In order to install the EZ-Key interface you must remove the metal shielding which covers the top of the A1200 Motherboard. Once the shielding has been removed locate the chip which the adaptor fits over. It is just to the right of the usual A1200 keyboard (white) connector and is approximately 28mm square The IC is labelled 8520PL



Position the EZ-KeySE adaptor over the chip making sure all 90deg. corners match up and the 45deg corner on the-adaptor also matches the one on the CIA Chip Then push the unit down firmly until the black socket is touching the Motherboard (shown overleaf).



The adaptors may vary slightly in appearance but the cable leading off to the 5-pin Keyboard connector should always point towards the mouse ports / floppy drive connector

The next step is to mount the 5-pin DIN socket on the rear of your tower using the small nut and bolts provided.

The interface will now allow you to connect an External PC Keyboard to your A1200. The majority of keyboards will work, however there are some old keyboards which may give problems. We suggest using a *new* Windows 95 keyboard.

When using a Windows 95 Keyboard the Left and Right Amiga keys become the F11 and F12 keys. If you wish to do a 'soft-reset' then press the Control, Alt & Del keys simultaneously.

We don't expect you to find the installation difficult or have any problems but if you are unsure of any part of the procedure please call for assistance. The number for Technical Help is 07000 393832. Help is available between certain times during the day - please call the sales desk to find out when help is available. The Sales number is 01642 713185 during office hours.